

E!
Cont. wherein an oxide is formed on the crystallized semiconductor film by the irradiation of the laser light; and

removing the oxide from the crystallized semiconductor film,

wherein an inert gas is used as a sputtering gas in the sputtering method, the inert gas being at least one selected from the group consisting of Ar, He, and Ne.

15. (Amended) A method for manufacturing a semiconductor device comprising:

forming an amorphous semiconductor film through a sputtering method over a plastic substrate;

applying a metal containing material to at least a portion of the amorphous semiconductor film, the metal being capable of promoting crystallization;

crystallizing the amorphous semiconductor film to form a crystallized semiconductor film by irradiating the amorphous semiconductor film with a laser light wherein an oxide is formed on the crystallized semiconductor film by the irradiation of the laser light; and

removing the oxide from the crystallized semiconductor film,

wherein an inert gas is used as a sputtering gas in the sputtering method, the inert gas being at least one selected from the group consisting of Ar, He, and Ne.

16. (Amended) A method for manufacturing a semiconductor device comprising:

forming an amorphous semiconductor film comprising silicon and germanium through a sputtering method over a plastic substrate;

crystallizing the amorphous semiconductor film to form a crystallized semiconductor film by irradiating the amorphous semiconductor film with a laser light wherein an oxide is formed on the crystallized semiconductor film during the irradiation of the laser light; and

removing the oxide from the crystallized semiconductor film,

E¹
cont

wherein an inert gas is used as a sputtering gas in the sputtering method,
the inert gas being at least one selected from the group consisting of Ar, He, and Ne.

E²

18. (Amended) A method for manufacturing a semiconductor device comprising:

forming a gate wiring over a plastic substrate;

forming a gate insulating film on the gate wiring;

forming an amorphous semiconductor film through a sputtering method on the gate insulating film;

crystallizing the amorphous semiconductor film to form a crystallized semiconductor film by irradiating the amorphous semiconductor film with a laser light wherein an oxide is formed on the crystallized semiconductor film during the irradiation of the laser light; and

removing the oxide from the crystallized semiconductor film,

wherein an inert gas is used as a sputtering gas in the sputtering method,
the inert gas being at least one selected from the group consisting of Ar, He, and Ne.

19. (Amended) A method for manufacturing an electroluminescence display device comprising at least a thin film transistor, the method comprising the steps of:

forming an amorphous semiconductor film through a sputtering method over a plastic substrate;

crystallizing the amorphous semiconductor film to form a crystallized semiconductor film by irradiating the amorphous semiconductor film with a laser light wherein an oxide is formed on the crystallized semiconductor film;

removing the oxide from the crystallized semiconductor film;

forming a gate insulating film adjacent to the crystallized semiconductor film;

forming a gate electrode adjacent to the crystallized semiconductor film with the gate insulating film interposed therebetween;

E2
cont
introducing an impurity into the crystallized semiconductor film to form a source region and a drain region of the thin film transistor;

forming an interlayer insulating film over the thin film transistor;

forming a first electrode over the interlayer insulating film, the first electrode being electrically connected to the drain region of the thin film transistor;

forming an EL layer adjacent to the first electrode; and

forming a second electrode adjacent to the EL layer,

wherein an inert gas is used as a sputtering gas in the sputtering method, said inert gas being at least one selected from the group consisting of Ar, He, and Ne.

E3
c
31. (Amended) The method according to claim 14, wherein the semiconductor device is selected from the group consisting of a liquid crystal display device, an EL display device, an EC display device and an image sensor.

32. (Amended) The method according to claim 14, wherein the semiconductor device is selected from the group consisting of a video camera, a digital camera, a projector, a goggle display, a navigation system for vehicles, a personal computer and a portable information terminal.

33. (Amended) The method according to claim 15, wherein metal is at least one selected from a group consisting of Ni, Fe, Co, Pt, Cu and Au.

34. (Amended) The method according to claim 15, wherein the metal is at least one selected from the group consisting of Ge and Pb.

35. (Amended) The method according to claim 15, wherein the semiconductor device is one selected from the group consisting of a liquid crystal display device, an EL display device, an EC display device and an image sensor.

E3
Cm1

36. (Amended) The method according to claim 15, wherein the semiconductor device is selected from the group consisting of a video camera, a digital camera, a projector, a goggle display, a navigation system for vehicles, a personal computer and a portable information terminal.

E4

39. (Amended) The method according to claim 16, wherein the semiconductor device is selected from the group consisting of a liquid crystal display device, an EL display device, an EC display device and an image sensor.

40. (Amended) The method according to claim 16, wherein the semiconductor device is selected from the group consisting of a video camera, a digital camera, a projector, a goggle display, a navigation system for vehicles, a personal computer and a portable information terminal.

E5

43. (Amended) The method according to claim 18, wherein the semiconductor device is selected from the group consisting of a liquid crystal display device, an EL display device, an EC display device and an image sensor.

44. (Amended) The method according to claim 18, wherein the semiconductor device is selected from the group consisting of a video camera, a digital camera, a projector, a goggle display, a navigation system for vehicles, a personal computer and a portable information terminal.

E6

48. (Amended) The method according to claim 14, wherein the amorphous semiconductor film is formed on a base film over the plastic substrate.

49. (Amended) The method according to claim 15, wherein the amorphous semiconductor film is formed on a base film over the plastic substrate.

E⁶
cont.

50. (Amended) The method according to claim 16, the amorphous semiconductor film is formed on a base film over the plastic substrate.

E⁷

52. (Amended) The method according to claim 19, wherein the amorphous semiconductor film is formed on a base film over the plastic substrate.

53. (Amended) The method according to claim 14, wherein the laser light is irradiated with the amorphous semiconductor film exposed to the atmosphere.

54. (Amended) The method according to claim 15, wherein the laser light is irradiated with the amorphous semiconductor film exposed to the atmosphere.

55. (Amended) The method according to claim 16, wherein the laser light is irradiated with the amorphous semiconductor film exposed to the atmosphere.

56. (Amended) The method according to claim 18, wherein the laser light is irradiated with the amorphous semiconductor film exposed to the atmosphere.

57. (Amended) The method according to claim 19, wherein the laser light is irradiated with the amorphous semiconductor film exposed to the atmosphere.